

(PCT Article 36 and Rule 70)

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/053388

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages _____ as originally filed/furnished
- pages* 1-73 received by this Authority on 20.09.2005 with letter of 16.09.2005
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-20 received by this Authority on 20.09.2005 with letter of 16.09.2005
- nos.* _____ received by this Authority on _____
- ☐ the drawings:
- sheets _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application

☒ claims Nos. 20

because:

☐ the said international application, or the said claims Nos. _____
relate to the following subject matter which does not require an international preliminary examination (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. _____ are so inadequately supported
by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 20

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.

☐ See Supplemental Box for further details.

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims <u>1-19</u>	YES
		Claims _____	NO
	Inventive step (IS)	Claims <u>1-19</u>	YES
		Claims _____	NO
	Industrial applicability (IA)	Claims <u>1-19</u>	YES
		Claims _____	NO
2.	Citations and explanations (Rule 70.7)		
	<p>By the limitation to novel compounds of formula I, unity of invention has now been established.</p> <p>This report makes reference to the following documents (D), which have been cited in the search report:</p> <p>D1: DREWELIES K ET AL: "o- and m- Phenylene-bis(dichlorophosphane)-versatile, useful synthetic building blocks" ANGEWANDTE CHEMIE. INTERNATIONAL EDITION., vol. 21, no. 8, 1982, pages 638-639, XP002192246 VERLAG CHEMIE. WEINHEIM., DE ISSN: 0570-0833.</p> <p>D2: WO-A-03/031456</p> <p>D3: XP002323768 (Mehring, M.)</p> <p>D4: WO-A-03/048107</p> <p>D6: DE-A-10052391</p> <p>D7: EP-A-803510</p> <p>D8: WO-A-03/093285</p> <p>D9: EP-A-842140</p> <p>D10: XP-004174097</p> <p>D11: XP-004245864</p> <p>D12: XP-002160687</p> <p>D13: XP-004158858</p>		

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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D14: WO-A-03/076451

Independent **claim 2**

By the limitation to ferrocenes, bis(indenyl) ferrocenes and ruthenocenes of the original claim 6, novelty and inventive step can be recognized for independent claim 2 (compound (I)) because D1 does not relate to any sandwich compounds.

Claim 1 relates to the production of compounds (I) and **claims 4 and 8** relate to the use thereof: the claims therefore appear to be patentable even as an analogous method in conjunction with a patentable substance claim 2 (see PCT Guidelines III; 13.19).

Independent **claim 5:**

1,2-bissubstituted ferrocenes are already known from several documents, *inter alia* in WO-A-00/37478, which is cited by the applicant, as formula (I) in which one of the substituents is phosphino and therefore does not have the following structural element:

-P-X1

X2

This group is, however, generically disclosed in D4, page 9, with formula (Vb).

1,2-ferrocenyl for group Z is anticipated on page 10. Since the preparation of compound (III) according to claim 5 therefore involves at least two selections from D4, inventive step can be recognized.

The same argument applies with regard to D6.

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**Claims 10, 12, 14, 16 and 18**

The novel compounds of these claims (see, with regard to claim 16, for example, D13, compound 10a) are used in the novel and inventive methods according to claims 11, 13, 15, 17 (compound XXVII is compound XXV in these claims) and 19 and are therefore also inventive.

Dependent **claims 3, 6, 7, 9, 11, 13, 15, 17 and 19**

Dependent claims 3, 6, 7, 9, 11, 13, 15, 17 and 19 relate to further embodiments of the invention. These claims therefore also meet the EPC requirements.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: **Box III**

Claim 20 has not been searched.